

Doug Jensen

Don O.

Fred  
Spencer  
Bell

m/023/007



## NORTH LILY MINING COMPANY

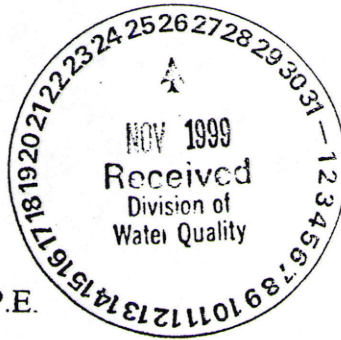
Suite 210

1800 Glenarm Place

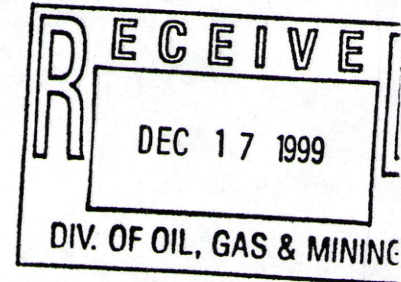
Denver, CO 80202

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November 24, 1999



Mr. Don A. Ostler, P.E.  
Executive Secretary  
State of Utah  
Division of Water Quality  
288 North 1460 West  
Salt Lake City, UT 84114-4870

Re: Violation and Order, Docket No. UGW2003, North Lily Mining Company

Dear Mr. Ostler;

This letter is intended to be fully responsive to the information requests contained in Notice of Violation and Order, Docket No. UGW2003 dated October 19, 1999. North Lily Mining Company believes that it has always been cooperative in its relationship with DWQ and it is the Company's intention to operate in a responsible manner in accord with applicable regulations, rules, stipulations, and permit conditions. The responses below follow in the sequence of the Order except for Item 1, which will be addressed within the 60 days provided in the Order.

2. *Submit plans and specifications and schedule for Executive Secretary Approval to restore Discharge Minimization Technology in all solution ponds and heap leach pads within 30 days of receipt of this ORDER including Quality Assurance/Quality Control (QA/QC) specifications. The plan must address measures to be taken to prevent recurrence of liner damage.*

North Lily's efforts between August 1999 and facility closure in fall 2000 have and will be directed toward the application of discharge minimization technology. Between now and the beginning of closure construction activities, the Company's efforts are directed toward 1) minimizing the volume of fluids in the system and 2) maintenance of the existing facilities including the heap, solution conveyance channels and ponds. A discussion of these subjects follows.

Fluid Management - North Lily Mining Company has implemented a program that has resulted in substantially reduced fluid volumes in storage. The Company has been aggressively evaporating fluids since August. These efforts have been successful with pond fluid volumes being reduced from approximately 1,000,000 gallons at August 18, 1999 to about 700,000 gallons at September 9, 1999 and less than 100,000 gallons at



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November 10, 1999. This is less than 10% of the fluid inventory when compared with the period of active leaching. This is also less than 10% of the fluid inventory of November 1998 (see DOGM inspection photographs). This successful fluid minimization effort is attributed to active fluid management including the addition of misters and good weather.

North Lily estimates that there is less than 200,000 gallons of active fluids in the system at November 19, 1999. This estimated quantity includes about 80,000 gallons in the preg pond, 20,000 gallons in the barren pond and less than 100,000 gallons subject to drain down. Pumping was suspended on several occasions during the past month and drain down is estimated at 25 gallons per minute, 36,000 gallons per day or 72,000 gallons for the 48-hour standard measurement of "available" drain down.

The pond capacities according to company measurements are listed below.

Pond	Capacity (US Gallons)
Preg Pond	894,608
Barren Pond	1,113,024
Sub-total	2,007,632
Overflow Pond	1,529,728
Total Pond Capacity	3,537,360

The 100-year, 24-hour storm was calculated by SRK, the project's design engineers, to be 2.8 inches. Coupling this hypothetical storm with snowmelt containing 1 inch of moisture results in 3.8 inches of moisture over the approximate 16-acre site. Further assuming that all of this moisture reports to the ponds, a total of 1,655,000 gallons of fluids would be added to the existing inventory of 200,000 gallons resulting in a storage requirement of about 1,855,000 gallons. This quantity can be stored in the preg and barren ponds.

*Are there in good shape?*

In the event that additional storage is required, North Lily would request timely permission from DWQ to temporarily utilize the 1.5 million gallon capacity overflow pond. Thus it is believed that the ponds will adequately contain all existing solutions plus any additional drain down or runoff caused by a significant rainfall event(s) and any spring snowmelt.

Facility Maintenance – North Lily has identified some slumping of the graded heap surface at three or four specific locations that may be impeding flow in the solution conveyance ditches. These areas will be dug out in December to restore direct solution flow to the ponds. The slumps along with rill erosion surfaces will be repaired as a part of final grading and prior to placement of topsoil on the heap surface.

North Lily implemented a program of maintenance to repair tears in the pond liners in September. Repairs have been made to the seam tear in the overflow pond, to other damaged areas in the overflow pond and to the spillway between the barren pond and the overflow pond. The repairs to the spillway from the pad to the preg pond have begun and this work will be completed by early December, weather permitting. All repairs are being completed in accordance with procedures recommended by the liner manufacturer and

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approved adhesives are being used. Necessary maintenance to the heap, pond liners and solution channels will be promptly preformed to prevent further deterioration of these facilities.

Summary:

- Fluid volume minimization efforts have successfully reduced fluids in inventory by over 80%. These efforts will continue over the winter and spring to allow implementation of the closure plan during the construction season next year.
- Maintenance to repair the overflow pond liner has been completed as has been the work to repair the spillway between the barren pond and overflow pond. All repairs are being completed in accordance with procedures recommended by the liner manufacturer including the use of approved adhesives.
- Repairs to the main spillway have begun and they will be completed as soon as the weather allows.
- Following the liner repair work, solution ditches in the areas of slumps will be dug out with this work scheduled for completion by the end of December 1999.

Completion of the above activities will ensure the application of Discharge Minimization Technology until the time of facility closure.

3. *Not place heap leach effluent in the overflow pond unless the liner system in the pond is restored including the overflow structure. NORTH LILY must obtain approval from the Executive Secretary before the overflow pond is placed back in service.*

It is understood that heap leach effluent is not to be placed in the overflow pond unless the liner system is repaired and that approval must be received from the Executive Secretary before placing the overflow pond back in service.

North Lily implemented a program of maintenance to repair tears in the pond liners in September. Repairs have been made to the seam tear in the overflow pond, to other damaged areas in the overflow pond and to the spillway between the barren pond and the overflow pond. All repairs are being completed in accordance with procedures recommended by the liner manufacturer.

It is believed that heap effluent can be stored in the preg and barren ponds until closure of the facility. In the event that additional storage is required, North Lily would request timely permission from DWQ to temporarily utilize the 1.5 million gallon capacity overflow pond.

*Are we in  
agreement?  
Testing?*

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4. *Immediately begin sampling and reporting of the heap leach pad effluent as required by the permit.*

North Lily has resumed primary responsibility for sampling and reporting of the heap leach pad effluent by collecting a sample on November 9, 1999. The sample was submitted to Chemtech-Ford, Inc. for analysis. The results of the analysis will be forwarded to DWQ upon receipt. Sampling events will return to the schedule contained in the permit effective immediately.

5. *Submit, within 30 days of the receipt of this ORDER, all data that has not previously been reported since the issuance of the permit.*

Compliance Technology, Inc. agreed in 1998 to be responsible for sampling and reporting of the heap leach pad effluent analysis results to DWQ as a part of their contract to conduct studies and design a biopass reactor. Attached are copies of the data provided to North Lily by Compliance Technology, Inc.

6. *Develop and submit a water management plan within 30 days of receipt of this ORDER assessing methods to dispose of excess water from the heap leach pad.*

North Lily Mining Company has implemented a program that has resulted in substantially reduced fluid volumes in storage. During the next construction season, North Lily will evaporate or land apply (subject to agency approval) remaining fluids.

7. *Submit, within 30 days of the receipt of this ORDER, a complete time line of all closure activities planned including the beginning and conclusion of various phases of the project for Executive Secretary approval.*

It is North Lily's intention to complete the closure of the Silver City heap leach facility during the 2000 construction season. DWQ and DOGM have approved the Silver City heap leach closure plan with the exception of the detailed construction plans and specifications for the biopass system including the evaporation pond, sampling ports and potential drain field. Because North Lily must retain a qualified firm for design of the biopass system to replace Compliance Technology, Inc., this approval is the one item outstanding beyond the control of North Lily. The closure time line is listed below.

Activity	Begin	Complete
Minimize Fluids in System	September 1999	October 2000
Maintain Ditches and Ponds	September 1999	October 2000
Design Biopass System	January 2000	April 2000
Biopass Design Approved	April 2000	June 2000
Final Repair of Ditches	July 2000	July 2000
Final Grading of Site	August 2000	August 2000
Cleanup of Site	November 1999	August 2000
Topsoil, Seed, Mulch, etc.	September 2000	October 2000
Closed Facility Maintained	November 2000	September 2003
Facility Deemed Closed		September 2003

Why land  
apply if  
evaporation  
is so  
successful

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Please feel free to contact either Tom Gast of Environmental Management Services Company (970/461-0571) or me if additional information can be provided.

Sincerely,



W. Gene Webb  
Executive Vice-President

Encl: Water Quality Data  
Certification

Cc: Stephen Flechner, President, NLMC  
Dennis Frederick, DWQ  
Beth Wondimu, DWQ  
Wayne Hedberg, DOGM  
Tom Gast, EMS

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Certification

In accordance with the provisions of Part IV.4 of the permit, all information submitted shall be signed and make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."



W. Gene Webb  
Executive Vice-President, NLMC

Mr. Don Ostler, P.E.

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North Lily Mining Company  
1998 and 1999 Monitoring Data



**Search No: L981362**

**Page 1**



AMERICAN ENVIRONMENTAL CONSULTANTS

ANALYTICAL DATA REPORT

North Lily Mining, Silver City

(Project)

Batch No: L981362



DIGESTION- 3010  
PH IS A FIELD PARAMETER THEREFORE HOLDING TIME CANNOT  
BE MET BY THE LABORATORY.

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Reviewed  
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Reviewed

AMERICAN ENVIRONMENTAL CONSULTANTS  
ANALYTICAL DATA REPORT  
Compliance Technology  
Project NORTH LILLY MINING  
Batch No: 0090065

Batch No: 0090065	Practical Quantitation Limit				
Ag(O)	.05	ppm	CaCO3	6010	310.1
ALK.	1.	ppm		6010	310.1
As(O)	.1	ppm		6010	310.1
Ba(O)	.05	ppm		6010	310.1
Ca(O)	.05	ppm		6010	310.1
Ch(O)	.05	ppm		6010	310.1
CO3	1.	ppm		6010	310.1
Cr	.05	ppm		6010	310.1
Cl(O)	.05	ppm		6010	310.1
Cu(O)	.1	ppm		6010	310.1
Fe(O)	.05	ppm		6010	310.1
HCO3	1.	ppm		6010	310.1
Hd(O)	5.	ppm		6010	310.1
K(O)	2.	ppm		6010	310.1
Mg(O)	.05	ppm		6010	310.1
Mn(O)	4.	ppm		6010	310.1
Na(O)	.05	ppm		6010	310.1
Ni(O)	.1	ppm		6010	310.1
NO2/NO3	.05	ppm		6010	310.1
PR(O)	2	ppm		6010	310.1
PH	.05	ppm		6010	310.1
SE(O)	.05	ppm		6010	310.1
SO4	2.	ppm		6010	310.1
TUS	10.	ppm		6010	310.1
WADCH	.05	ppm		6010	310.1
Zn(O)	.05	ppm		6010	310.1

*[Signature]*  
10/27/99  
10/27/99

ASTM 0-2036-81 METN.C  
6010

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Compliance Technology

(PROJECT NORTH LILY)

Batch No: L990592

L990592-1 06-APR-99 MLO406

AG(D)	.14	PPM	BD	27-APR-99	180	6010
ALX	266.	PPM	BD	16-APR-99	11	310.1
AS(D)	1.1	PPM	BD	27-APR-99	180	6010
CO3	249.	PPM	BD	16-APR-99	310.1	
CU(D)	9.0	PPM	BD	27-APR-99	180	6010
HCO3	<1.0	PPM	BD	16-APR-99	14	310.1
KG	333.	PPM	BD	16-APR-99	28	245.1
NO2/NO3	49.	PPM	BD	05-MAY-99	28	353.2
TDS	18969.	PPM	BD	13-APR-99	7	160.1

*Vince Hille*  
Approved  
*Deane Calk*  
Reviewer

ASARCO TECHNICAL SERVICES CENTER

ANALYTICAL DATA REPORT

Compliance Technology

(Project NORTH LILLY)

Batch No: MC990350

Practical Quantitation Limit

MC990350-5

HQ(D)	.010	ppm	CaCO3	6010
ALK.	1.0	ppm	CaCO3	310.1
Ag(D)	.050	ppm	CaCO3	6010
CO3	1.8	ppm	CaCO3	310.1
CU(D)	.010	ppm	CaCO3	6010
HCO3	1.0	ppm	CaCO3	310.1
HQ	.50	ppb		245.1
NO2/NO3	.050	ppm		353.2
TDS	10.	ppm		160.1

*Unco bld*  
Approved  
*Debra Cobb*  
Reviewer